# Chapter 7
# DEMILITARIZATION

**7.1. General:**

7.1.1. This chapter implements the requirements of the DoD Manual 4160.21-1, *Defense Demilitarization Manual*, October 1991, which sets forth the requirements for demilitarization and the method and degree of demilitarization. These instructions apply to Air Force (AF) activities worldwide.

7.1.2. Requests for waiver, modification, exception, or addition to the Department of Defense (DoD) Demilitarization (DEMIL) requirements will be submitted to Headquarters Air Force Materiel Command (HQ AFMC/LGIA) on a case-by-case basis. Each request must be fully justified. The Air Force DEMIL Program Manager (PM) in HQ AFMC/LGIA will review and recommend approval to Headquarters Defense Logistics Agency (HQ DLA/MMSC) or direct to the Office of the Assistant Secretary of Defense (OASD/P&L) when they concur with the request. The DoD PM (HQ DLA/MMSC) will review and recommend either approval or disapproval to OASD/P&L. The OASD/P&L response will be forwarded by HQ DLA/MMSC to the Air Force PM. Any request coming directly from an AF activity other than the Air Force PM will be returned to the requester without action.

**7.2. Policy:**

7.2.1. It is DoD policy that surplus and foreign excess personal property designated as arms, ammunition, implements of war, and other military type items will be demilitarized to the extent necessary to preclude the unauthorized use of military items; destroy the military advantages inherent in certain types of property; render innocuous that property which is dangerous; protect the national interest; and preclude the compromise of security requirements.

7.2.2. Utilization screening and specialized sales by the Defense Reutilization and Marketing Office (DRMO) will always precede demilitarization. Utilization screening and specialized sales include the application of assets against:

7.2.2.1. All DoD requirements.

7.2.2.2. Other federal agency requirements.

7.2.2.3. Authorized donee requirements.

Note: Limited demilitarization is required for donations pursuant to statutory authority of Title 10, United States Code, Section 2572. Refer to chapter 8 of this publication and DoDM 4160-21-1, chapter IV.

7.2.2.4. Specifically authorized foreign and domestic sales, such as foreign military sales to approved foreign countries, domestic sales to law enforcement and fire fighting agencies, and sales of explosives to licensed manufacturers and dealers.

7.2.3. The DRMOs on an individual basis can determine in coordination with the generating activities, the most appropriate and economical means for the DRMO to properly demilitarize munitions list items (MLIs). This does not include DEMIL Code "G" or "P" items, because these items must be demilitarized prior to transfer to DRMO. Demilitarization should be accomplished by the most cost effective method consistent with adequate security and surveillance by one of the following:

7.2.3.1. The DRMO.

7.2.3.2. A contractor as a condition of sale.

7.2.3.3. Service contract.

7.2.3.4. The generating activity or a military service designated for certain commodities.

7.2.4. The automatic assignment of DEMIL code "A" to items that have never been assigned a DEMIL code solely for the purpose of filling the DEMIL code requirement so that the items will pass the cataloging edits is positively prohibited. DEMIL codes will be assigned to all items during the cataloging process by the equipment specialist (ES). The ES shall periodically review each item of supply for which they are primarily responsible and ensure that DEMIL codes are assigned according to the criteria contained in DoDM 4160-21-1. As a minimum, 15 percent of the items managed will be reviewed annually. New and changed DEMIL codes will be submitted to the Cataloging and Standardization Center (CASC) for input to the Defense Logistics Services Center (DLSC) total item record (TIR). This may be accomplished by means of an AF Form 86, Request for Cataloging Data/Action, via the D143C system, "AF/DLIS Edit and Routing System," or by submitting a letter or message, when it is known that one code is applicable to a number of items.

7.2.5. Requests for waivers to DEMIL and trade security control requirements for reasons of obsolescence (release without DEMIL, control, or license) of any weapon system or its parts, components, repair parts, etc., must be processed in accordance with paragraph 7.1.2, above. The following conditions must be addressed in the request:

7.2.5.1. Weapons system not being used in any application by any DoD or DoD-supported activity.

7.2.5.2. Interchange ability -- not interchangeable with any other in-use system.

7.2.5.3. National item identification number (NIIN) status -- must be in other than an active or usable status.

7.2.5.4. Spare parts -- no stockage by any entity, to include foreign military sales (FMS) customers.

7.2.5.5. FMS requirements -- not required by any foreign customer country.

**7.3. Responsibilities:**

7.3.1. The President of the United States, pursuant to the provisions of Section 414 of the Arms Export Control Act of 30 June 1976, as amended (22 U.S.C 2778), is authorized to control, in furtherance of world peace and the security and foreign policy of the United States, the export and import of arms, ammunition, and implements of war, including technical data relating thereto, other than by a United States Government agency. Executive Order 11958, Administration of Foreign Assistance and Related Functions, November 3, 1961, delegates the function of controlling exports of United States Munitions List (USML) items to the Department of State. See Figure 7.1. Imports are controlled by the Department of Treasury under authority delegated by Executive Order No. 11432, Control of Arms Imports, July 22, 1972.

7.3.2. The DoD is responsible for the disposition of its surplus and foreign excess property, including articles covered by the USML, which are owned by or under the control of DoD; for determining whether such items will be sold with or without being demilitarized; and for the extent and adequacy of required demilitarization.

7.3.3. The DLA, in coordination with the military services, will develop and maintain DoDM 4160-21-1 in a current status to reflect the policy guidance prescribed by DoD.

7.3.4. The DoD DEMIL Program Office will manage the request for DEMIL waiver program as follows:

7.3.4.1. Determine through intelligence channels that the system is not in the current inventory of any other foreign country, especially those unfriendly to U. S. interests.

7.3.4.2. Forward the request to the Department of State (Office of Defense Trade), Commerce (Office of

Export Administration), and Defense (Defense Technology and Security Administration) for review and concurrence or non-concurrence.

7.3.4.3. When the above agencies concur, forward complete request package to OASD/P&L for approval.

7.3.5. The DRMO:

7.3.5.1. Is responsible for the demilitarization of all materiel, except those items that are assigned "G" or "P" DEMIL codes. The DRMO can perform the DEMIL or have it accomplished by:

7.3.5.1.1. The buyer as a condition of sale.

7.3.5.1.2. The generating activity on a reimbursable basis or in accordance with any inter service support agreement.

7.3.5.1.3. Service contract.

7.3.5.1.4. Special Defense Property Disposal accounts.

7.3.5.2. Will negotiate, as necessary, with the military service activity concerned to furnish technical expertise where essential to ensure proper demilitarization.

7.3.5.3. Will negotiate, as necessary, with the military service activity concerned on retaining physical custody of materiel until final disposition is made.

7.3.5.4. Will be responsible for compliance review and surveillance to insure proper demilitarization prior to title transfer when the sales contract provides for demilitarization by the buyer.

7.3.5.5. Will notify the inventory manager for possible demilitarization code change, when demilitarization specifications appear to be overstated or inadequate.

7.3.6. AF activities:

7.3.6.1. The equipment specialist (ES) will assign the appropriate DEMIL code to each item managed.

7.3.6.2. The supply analyst function/storage activity will ensure that the DEMIL code is visibly reflected on the disposal turn-in document (DTID).

7.3.6.3. The inventory control point (ICP)/Chief of Supply (COS) will declassify materiel according to directing guidance; and, if required, further demilitarize classified materiel prior to turn-in of the residue, if any, to the DRMO. Note: Classified materiel is not subject to utilization screening or specialized sales by the DRMO.

7.3.6.4. The ICP/COS will accomplish demilitarization on a reimbursable basis or in accordance with your local inter service support agreement, when requested by the DRMO.

7.3.6.5. The ICP will furnish a qualified technician or inspector on a reimbursable basis or in accordance with your local inter service support agreement, when requested by the DRMO for compliance review or surveillance to ensure proper demilitarization by contractors.

7.3.6.6. When requested by the DRMO due to volume of property, security reasons, or other circumstances, the COS/storage activity will retain physical custody of materiel until the DRMO makes final disposition.

**7.4. Foreign Excess:**

7.4.1. It is the policy of DoD to cooperate with the U. S. Department of State in controlling the release of

foreign excess MLIs located outside the United States, Puerto Rico, American Samoa, Guam, the Trust Territories of the Pacific Islands, and the Virgin Islands. Demilitarization of MLIs over and above that required by DoD, but necessary to conform to U. S. Department of State or foreign government requirements, is authorized.

7.4.2. In some cases demilitarization may not be necessary; while in other cases limited demilitarization may be necessary only for certain parts of components having military characteristics. Theater commanders in consonance with appendix 5 to DoDM 4160-21-1 and any additional technical instructions issued by the inventory manager, will determine the method of demilitarization and the degree to which additional demilitarization is necessary to meet the requirements in their respective areas.

**7.5. Demilitarization of Excess and Nonexcess Personal Property:**

7.5.1. Current DoD policy requires items on the munitions list (Title 22, Code of Federal Regulations, Part 121, United States Munitions List, current edition) designated as arms, ammunition, implements of war, and other military type items be demilitarized to the extent necessary to preclude unauthorized use, destroy the military advantages inherent in them, render innocuous dangerous property, protect the national interest, and preclude the compromise of security requirements. MLIs are not just firearms and ammunition, but include the full range of military design items including aircraft, missiles, spacecraft, training equipment, protective personnel equipment,electronic equipment, technical data, etc.

7.5.2. All items in the DoD inventory shall be assigned a demilitarization code. Prior to release of property from DoD custody and control, the owning activity is responsible for ascertaining the DEMIL code for the property and ensuring that it is entered on the transfer document or included in the lease, loan, or sales agreement. This responsibility includes challenging the DEMIL code to the DoD inventory manager if the owning activity believes the assigned DEMIL code is not correct and could result in the unauthorized transfer of munitions list property.

7.5.3. All maintenance, laboratory, research and development, and other activities that generate or turn-in locally assigned stock numbered items ("L" or "P" numbers) are required to annotate on the turn-in document and condition tag that the items have or do not have a military application. Where applicable the activity will indicate that the item is a Military Critical Technologies List (MCTL) item and requires demilitarization, declassification, or other special handling requirements. The maintenance, development, or manufacturing activity will ensure that sufficient information is provided to support the assignment of a DEMIL code when the item is turned in to Base Supply or directly to the DRMO. The automatic assignment of DEMIL code "A" to "L" and "P" stock numbers is not acceptable. The code assigned must be supported by the information provided by the owning or using activity.

7.5.4. The activity owning the non-excess property is responsible for ensuring that DEMIL requirements are identified to the activity negotiating the exchange, sales contract, loan, or lease agreement; developing the written determination of economic advantage; and, as appropriate, requesting any waiver to DEMIL requirements. The activity negotiating the sale, exchange, loan, or lease is responsible for ensuring that demilitarization is accomplished or made a condition of the contract or agreement.

7.5.5. The determination of whether property is excess or non-excess will be made in accordance with the policy in AFI 23-502, *Recoverable and Unusable Liquid Petroleum* Products (principal and secondary items); AFI 16-402, *Aerospace Vehicle Assignment, Distribution, Accounting, and Termination*; and chapter 9 of this publication (aircraft and missiles).

7.5.6. Defense related technology is a valuable, limited national resource to be managed, conserved, and invested in the pursuit of national security interests. The loss, theft, unlawful disposition, and/or

recovery of any items of a sensitive nature will be reported by the person becoming aware of such act to the COS and, as appropriate, other local authorities. Instances of deviation from demilitarization policy or improper transfer of munitions list items should be reported through command channels to HQ AFMC/LGIA and HQ USAF/ILSP so corrective action can be initiated.

7.5.7. Items that have not been assigned a national stock number (NSN) or assigned to an ICP for item management (IM) responsibility shall be identified for demilitarization applicability by the using or owning activity. Items in this category include assets used or manufactured in the Research and Development (R&D) process and Special Tooling/Special Test Equipment (ST/STE). The project manager or program manager who is responsible for the item involved shall be responsible for identifying the items as classified, MCTL or MLI and specifying what the special handling/demilitarization requirements are. The activity that prepares the DTID shall ensure that the appropriate DEMIL code is entered/annotated on the DTID when the item is transferred to the DRMO. The DEMIL code shall be assigned based on the information provided by the project/program manager. Classified materiel must be declassified/demilitarized prior to transfer to the DRMO and a declassification or demilitarization certificate must accompany the residue to the DRMO. Normally, ST/STE will not require demilitarization because the ST/STE has no direct military application, but is used to manufacture military application materiel. Therefore, the program manager must review and evaluate each individual piece of ST/STE to determine whether it is appropriate to demilitarize or not demilitarize the ST/STE.

7.5.8. Items that are assigned the following DEMIL codes/explanations must be demilitarized by base supply/maintenance prior to turn-in or transfer to the DRMO.

7.5.8.1. DEMIL Code "G" -- MLI, demilitarization required for Ammunition, Explosives, and Dangerous Articles (AEDA). Demilitarization and, if required, declassification and/or removal of sensitive marking or information will be accomplished prior to physical transfer to a DRMO. This code will be used for all AEDA items including those which also require declassification and/or removal of sensitive markings or information.

7.5.8.2. DEMIL Code "P" -- MLI, security classified item. Declassification and additional demilitarization and removal of any sensitive markings or information will be accomplished prior to accountability or physical transfer to a DRMO. This code will not be assigned to AEDA items.

7.5.8.3. DEMIL Code "F" -- MLIs, demilitarization instructions to be furnished by the item/technical manager. Items in this category may require some pre-DEMIL preparation, such as draining, purging, or removal of hazardous components, etc. When this is required, it will be specified in the demilitarization instructions or the Technical Order (TO) that is applicable to the equipment. If the requirement is specifically identified, the action must be accomplished prior to physically moving the materiel to the DRMO; otherwise, DEMIL Code "F" assets are transferred to DRMO, and DRMO will accomplish the demilitarization action.

7.5.9. All items other than DEMIL codes "G" and "P" are required to undergo reutilization, transfer, donation, and specialized sales screening prior to accomplishing the DEMIL action. These screening actions, subsequent issue when applicable, and the performance of DEMIL are the responsibility of the DRMO and are accomplished only after accountability is transferred to the DRMO. The DRMO may request the assistance of Base Supply/Maintenance to accomplish the demilitarization of materiel that the DRMO is normally responsible for demilitarizing. However, the assistance provided should be on a reimbursable basis to Base Supply/Maintenance or covered by an established support agreement.

**7.6. Demilitarization Code Challenges:**

7.6.1. Demilitarization code challenges may be initiated by the Defense Reutilization and Marketing

Service (DRMS), the DRMO, or the owning activity whenever they suspect that the DEMIL code is in error or that the currently assigned DEMIL code may allow a purely military application item to be released to an unauthorized agency without the DEMIL requirement being identified on the transfer documentation. DEMIL challenges may be submitted via letter or message to the Inventory Manager (IM)/ICP that is responsible for management of the NSN involved. An information copy of the challenge will be sent to HQ AFMC/LGIA. As a minimum , the challenge submittal will contain the following information:

7.6.1.1. NSN.

7.6.1.2. Assigned DEMIL code.

7.6.1.3. Recommended/proposed DEMIL code.

7.6.1.4. Rationale/justification for the DEMIL code change.

7.6.1.5. Date reply required (suspense).

7.6.2. The IM/ICP receiving the challenge will review the DEMIL code for assignment accuracy. The criteria provided in attachment 7A1 will be used for the assignment of DEMIL codes to items in the DoD inventory and the guidance will also be used to accomplish this review. The IM/ICP may exercise the following options:

7.6.2.1. Agree with the challenge and initiate action to change the DEMIL code. The change must be submitted to CASC through the on-line D143C system or on a hard copy AF Form 86. When a number of NSNs are involved, the IM/ICP may request that they be worked as a special project and a letter or message may be used for the submission.

7.6.2.2. Non-concur with the requested change and provide the requester a copy of the justification for the non-concurrence. The non-concurrence justification should state specifically why the IM/ICP disagrees with the proposed change. The IM/ICP ES decision on the DEMIL code assignment is final.

7.6.2.3. The IM/ICP will respond to the challenge request within 30 days of receipt, an interim reply will be provided when the review cannot be completed within 30 days.

7.6.2.4. Include HQ AFMC/LGID as an information addressee on all replies to DEMIL code challenges.

**7.7.** Processing procedures for demilitarization (demil) code "g" and "p" items; ammunition, explosives and other dangerous articles (aeda) and classified materiel requiring DEMIL before transfer to the Defense Reutilization and Marketing Office (Drmo).

7.7.1. This guidance is provided to clarify and standardize the processing procedures that air force activities must adhere to when AEDA or classified items are being transferred to the DRMO. The DRMO cannot physically accept AEDA or classified materiel for processing while the original physical characteristics remain intact. Therefore, it is essential that the accountable officer/ Chief of Supply maintain a clear, documented audit trail for all AEDA or classified materiel from the time it leaves the base or depot supply warehouse until it is received in a demilitarized/unclassified status by the DRMO.

7.7.1.1. In retail supply activities operating under the Standard Base Supply System (SBSS) procedures, the guidance provided in Vol. 2, Part 2, and Chapter 14 is applicable.

7.7.1.2. At the Air Logistics Centers (ALCs) the following procedures will be used to account for and track all AEDA and Classified items requiring DEMIL/declassification prior to the physical transfer of materiel to DRMO.

7.7.1.2.1. When Air Force managed AEDA or classified materiel is determined to be excess to the needs of the Department of Defense (DoD) the materiel residue shall be transferred to the DRMO. The item will be issued to maintenance using Document Identification Code (DIC) transaction "D7L" and AFMC Form 206, Temporary Work Request. The Job Designator will be indicated as DECLASS/DEMIL and "Special Instructions" will be as follows: "Accomplish Declassification/ Demilitarization and return completed certificate, residue and/or carcass to supply Central Receiving for turn-in". When wholesale assets are involved the wholesale IM shall initiate and fund the AFMC Form 206. When wholesale IM assets are located/stored at a site other than the IM location, the IM may elect to forward the AFMC Form 206 to the storage activity or have the materiel returned to the IM site for DEMIL/DECLASS. Normally, AFMC Form 206 and funding are not required for DEMIL/DECLASS actions accomplished at an Air Force Base other than the centers. As an alternative to using the DIC "D7L" for issue to maintenance the actual Disposal Turn-in Document (DTID) DIC "A5J" may be used as a temporary hand receipt while the materiel is actually being DEMIL/DECLASS by maintenance. When the alternative method of processing is used the issue and turn-in transactions are eliminated and the residue materiel and documentation may be transported from maintenance directly to the DRMO. This method of processing is normally used by SBSS activities and may be initiated/continued at the centers if desired. The processing methodology used by each activity will be as determined and documented locally.

7.7.1.2.2. The following certificate will be completed and returned with the property:

"I certify that declassification/demilitarization has been accomplished as prescribed in Technical Order/Manual_____ Chapter_____ Paragraph_____.

There is/is no residual materiel of salable quality. Residual materiel is/is not downgraded to scrap/waste or destroyed_____.

Printed name_____

Signature_____

Organization_____

Base _____

7.7.1.3. The activity that DEMIL the item completes the certification as follows:

7.7.1.3.1. If, after, DEMIL the property retains its original identity (only key points have been demilitarized), the certifying agent specifies that the item has been demilitarized, there is residual materiel and materiel has not been downgraded to scrap. The certifying agent then returns the residual property and related documentation to Supply for turn-in processing and subsequent transfer to DRMO. When the alternative method of processing is used the residual materiel, certificate and DTID is forwarded to DRMO.

7.7.1.3.2. If, after DEMIL, the property does not retain its original identity (it has been crushed or destroyed), the certifying agent will specify that the item has been demilitarized, that there is or is not residual materiel of salable quality, and that such materiel has been downgraded to scrap or waste.

7.7.1.3.3. If the residual materiel is of salable quality, the certifying agent or the supply inspector circles the stock number in record position 8-22 on the DTID, enters the word SCRAP, and forwards the residual materiel and DTID to DRMO.

7.7.1.3.4. If the residual materiel is not of salable quality, the certifying agent or the supply inspector circles the stock number in record position 8-22 on the DTID, enters the word WASTE and forwards only the documentation to the document control unit for filing. The disposal of waste materiel shall be

accomplished in accordance with requirements established locally.

7.7.1.3.5. After DEMIL, if there is no residual materiel (as in explosives/AEDA), the certifying agent certifies that the item has been demilitarized, that there is no residual materiel of salable quality and that

the residual materiel has been downgraded or destroyed. The agent or the supply inspector then circles the stock number in record position 8-22 on the DTID enters the word DESTROYED and forward's the documentation to the document control unit for filing.

7.7.1.3.6. When the stock number in record position 8-22 on the DTID has been circled and WASTE or DESTROYED has been annotated, the DRMO signature is not required, forward the documentation directly to the document control unit for filing.

7.7.1.4. When the procedures that are provided in paragraph 7.7.1.2.1, above are used and the property is issued to maintenance on a DIC "D7L" transaction; the materiel must be returned to supply for turn-in processing and subsequent transfer to the DRMO. The turn-in will be processed as a DIC "D6L" transaction for a condition code "H" (condemned) asset. The supply computer should automatically generate a DIC "A5J" DTID that is used to transfer the materiel to the DRMO. The DTID must be manually annotated to reflect that the materiel is now un-classified and the materiel has been downgraded to scrap, waste and/or destroyed as indicated above when appropriate.

7.7.1.5. The DTID, the completed DEMIL/DECLASS Certificate and condemned materiel residue will be forwarded to DRMO to complete the transfer transaction. When the item is being transferred to DRMO under the assigned NSN and the quantity involved is two or more, the residue materiel must be identified and maintained separately for each item. When the materiel is downgraded to waste or completely destroyed all documentation associated with the transfer is forwarded directly to the document control unit for filing in the completed document files.

## Attachment 7A1

## Assignment of Demilitarization Codes to Items in the Federal Inventory

**7A1.1. General Decision Process for Assignment of Demilitarization Codes:** The following is a decision processing tool using questions and answers to assist in the assignment of demilitarization codes to supply items. This tool is not intended to be all inclusive, but rather a general guide to code assignment. While general in nature, most supply system items can be properly coded using this tool. Questions regarding the assignment of demilitarization codes should be forwarded to DRMS, ATTN: DRMS-MD, 74 N. Washington Ave., Battle Creek, MI, (DSN) 932-7032/7387/7321.

**7A1.2.** Is the item commercially available and not been specifically designed, modified, or configured for military use?

7A1.2.1. If YES: Does item appear on the Commodity Control List (CCL) with an Export Commodity Control Number (ECCN) ending in A or B?

7A1.2.1.1. If YES: Assign DEMIL code "Q."

7A1.2.1.2. If NO: Assign DEMIL code "A."

7A1.2.2. If NO: Continue to paragraph 7A1.3. below.

**7A1.3.** Is the item on the United States Munitions List (USML); or is the item a part, repair part, component, subassembly, key point, etc., of an item appearing on the USML; or does the item have an offensive or defensive capability or contribute to that capability?

7A1.3.1. If YES:

7A1.3.1.1. Is the item classified? If YES: Assign DEMIL code "P." If NO: Continue to A1.3.1.2., below.

7A1.3.1.2. Does item fit the definition of ammunition, explosives, and dangerous articles (AEDA)? If YES: Assign DEMIL code "G." If NO: Continue to A1.3.1.3., below.

7A1.3.1.3. If item does not meet criteria of 7graphs A1.3.1.1. and 7A1.3.1.2. above, continue to paragraph 7A1.4.

7A1.3.2. If NO: Return to paragraph 7A1.2. above or call DRMS for additional assistance.

**7A1.4.** Is the item mentioned in the corresponding category of items listed in DOD 4160-21-M-1, Appendix 4?

7A1.4.1. If YES: Review paragraphs a, b, and c, of the corresponding category and determine if item(s) are listed.

7A1.4.1.1. If item requires DEMIL by other than DRMO personnel or because of the nature of the property, or because of other service directive: Assign DEMIL code "F" and prepare specific instructions for DEMIL accomplishment.

7A1.4.1.2. If the item is listed in DoD 4160.21-M-1, Appendix IV, paragraph A or as a key point in paragraph B: Assign DEMIL code "D."

7A1.4.1.3. If the item is listed in DoD 4160.21-M-1, Appendix IV, Paragraph B: Assign DEMIL code "C."

7A1.4.1.4. If the item is listed in DoD 4160.21-M-1, Appendix IV, Paragraph C: Assign DEMIL code "E."

7A1.4.2. If NO: Assign DEMIL code “B.”

## Attachment 7A2

## United States Munitions List

**7A2.1.** These articles are designated as Arms, Ammunitions, Implements of War (22 CFR 121), Subchapter M-International Traffic in Arms Regulation.

7A2.2. An asterisk (*) indicates items which are considered to be significant military equipment (SME), as defined in DoD 4160.21-M-1, Appendix 2.

**Table 7A2.1. Category I - Firearms.**

| | |
|---|---|
| *A | Non automatic, semiautomatic, and fully automatic firearms to caliber .50 inclusive, and all components and parts for such firearms. |
| B | Rifle scopes manufactured to military specifications and specifically designed or modified components therefor; firearms' silencers and suppressers including flash suppressers. |
| *C | Insurgency-counterinsurgency type firearms or other weapons having a special military application (e.g., close assault weapons systems) regardless of caliber and all components and parts therefor. |
| D | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.2. Category II - Artillery and Projectors.**

| | |
|---|---|
| *A | Guns over caliber .50, howitzers, mortars, and recoilless rifles. |
| *B | Military flame-throwers and projectors. |
| C | Components, parts, accessories, and attachments for the articles in blocks A and B of this category including, but not limited to, mounts and carriages for these articles. |
| D | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.3. Category III - Ammunition.**

| | |
|---|---|
| *A | Ammunition for the arms in categories I and II above. |
| B | Components, parts, accessories, and attachments for articles in block A of this category including, but not limited to, cartridge cases, powder bags, bullets, jackets, cores, shells (excluding shotgun shells), projectiles, boosters, fuses, and components therefor, primers and other detonating devices for such ammunition. |
| C | Ammunition belting and linking machines. |
| *D | Ammunition manufacturing machines and ammunition loading machines (except hand loading ones). |
| E | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.4. Category IV - Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs and Mines.**

| | |
|---|---|
| *A | Rockets (including, but not limited to, meteorological and other sounding rockets), bombs, grenades, torpedoes, depth charges, land and naval mines, as well as launchers for such defense articles, and demolition blocks and blasting caps. |
| *B | Launch vehicles and missile and antimissile systems including, but not limited to, guided, tactical, and strategic missiles, launchers, and systems. |
| C | Apparatus, devices, and materials for the handling, control, activation, monitoring, detection, protection, discharge, or detonation of the articles in blocks A and B of this category. |
| *D | Missile and space vehicle power plants. |
| *E | Military explosive excavating devices. |
| *F | Ablative materials fabricated or semifabricated from advanced composites (e.g., silica, graphite, carbon, carbon/carbon and boron filaments) for the articles in this category that are derived directly from or specifically developed or modified for defense articles. |
| *G | Non nuclear warheads for rockets and guided missiles. |
| H | All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in this category. |
| I | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.5. Category V - Explosives, Propellants, and Incendiary Agents.**

| | |
|---|---|
| *A | Military explosives. |
| *B | Military fuel thickeners. |
| C | Propellants for the articles in categories III and IV of this section. |
| D | Military pyrotechnics, except pyrotechnic materiels having dual military and commercial use. |
| E | All compounds specifically formulated for the articles in this category. |
| F | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.6. Category VI - Vessels of War and Special Naval Equipment.**

| | |
|---|---|
| *A | Warships, amphibious warfare vessels, landing craft, mine warfare vessels, patrol vessels, auxiliary vessels and service craft, experimental types of naval ships and any vessels specifically designed or modified for military purposes. |
| *B | Turrets and gun mounts, arresting gear, special weapons systems, protective systems, submarine storage batteries, catapults and other components, parts, attachments, and accessories specifically designed or modified for combatant vessels. |
| C | Mine sweeping equipment, components, parts, attachments, and accessories specifically designed or modified therefor. |
| D | Harbor entrance detection devices (magnetic, pressure, and acoustic) and controls and components therefor. |
| *E | Naval nuclear propulsion plants, their land prototypes, and special facilities for their construction support and maintenance. This includes any machinery, device, component, or equipment specifically developed, designed, or modified for use in such plants or facilities. |
| F | All specifically designed or modified components, parts, accessories, attachments and associated equipment for articles in this category. |
| G | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.7. Category VII - Tanks and Military Vehicles.**

| | |
|---|---|
| *A | Military type armed or armored vehicles, military railway trains, and vehicles specifically designed or modified to accommodate mounting for arms or other specialized military equipment or fitted with such items. |
| *B | Military tanks, combat engineer vehicles, bridge launching vehicles, half-tracks, and gun carriers. |
| *C | Self-propelled guns and howitzers. |
| D | Military trucks, trailers, hoists, and skids specifically designed, modified, or equipped to mount or carry weapons of categories I, II, and IV or for carrying and handling the articles in block A of categories III and IV. |
| *E | Military recovery vehicles. |
| *F | Amphibious vehicles. |
| *G | Engines specifically designed or modified for the vehicles in blocks A, B, C, and F of this category. |
| H | All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in this category including, but not limited to, military bridging and deep water fording kits. |
| I | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

## Table 7A2.8. Category VIII - Aircraft, Spacecraft, and Associated Equipment.

| | |
|---|---|
| *A | Aircraft including, but not limited to, helicopters, non expansive balloons, drones, and lighter-than-air aircraft, which are specifically designed, modified, or equipped for military purposes. This includes, but is not limited to, the following military purposes: gunnery, bombing, rocket or missile launching, electronic and other surveillance, reconnaissance, refueling, aerial mapping, military liaison, cargo carrying or dropping, personnel dropping, airborne warning and control, and military training. |
| *B | Military aircraft engines, except reciprocating engines, and spacecraft engines specifically designed or modified for the aircraft and spacecraft in blocks A and B of this category. |
| *C | Cartridge-actuated devices utilized in emergency escapes of personnel and airborne equipment (including, but not limited to, airborne refueling equipment) specifically designed or modified for use with the aircraft, spacecraft, and engines of the types in blocks A, B, and C of this category. |
| D | Launching and recovery equipment for the articles in blocks A and I of this category, if the equipment is specifically designed or modified for military use or for use with spacecraft. Fixed land based arresting gear is not included in this category. |
| *E | Inertial navigation systems, aided or hybrid inertial navigation systems, Inertial Measurement Units (IMUs) specifically designed, modified, or configured for military use and all specifically designed components, parts, and accessories. For other inertial reference systems and related components refer to Category XII. |
| *F | Developmental aircraft and components thereof which have a significant military applicability, excluding such aircraft and components that have been certified by the Federal Aviation Administration and determined through the commodity jurisdiction procedure, to be subject to the export control jurisdiction of the Department of Commerce. |
| *G | Ground effect machines (GEMs) specifically designed or modified for military use including, but not limited to, surface effect machines and other air cushion vehicles, and all components, parts, and accessories, attachments, and associated equipment specifically designed or modified for use with such machines. |
| H | Spacecraft including: Manned and unmanned, active and passive satellites; except those listed in Category XV. |
| I | Power supplies and energy sources specifically designed or modified for spacecraft. |
| J | Components, parts, accessories, attachments, and associated equipment (including ground support equipment) specifically designed or modified for the articles in blocks A through I of this category, excluding aircraft tires and propellers used with reciprocating engines. |
| K | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |
| L | Nonmilitary aircraft inertial navigation systems, except those systems or components that are standard equipment in civil aircraft, including spare parts and spare units to be used exclusively for the maintenance of inertial navigation equipment incorporated in civil aircraft and are certified by the Federal Aviation Administration (FAA) as being an integral part of such aircraft. |
| M | Technical data for the design, development, production, or manufacture of inertial navigation equipment or its related parts, components or subsystems which are standard equipment in civil aircraft and which are certified by the Federal Aviation Administration as being an integral part of such aircraft. FAA certified inertial navigation systems and all other technical data associated with such systems is under the licensing juridiction of the Department of Commerce. |

**Table 7A2.9. Category IX - Military Training Equipment.**

| | |
|---|---|
| A | Military training equipment including, but not limited to, attack trainers, radar target trainers, radar target generators, gunnery training devices, antisubmarine warfare trainers, target equipment, armament training units, operational flight trainers, air combat training systems, radar trainers, navigation trainers, and simulation devices related to defense articles. |
| B | Components, parts, accessories, attachments, and associated equipment specifically designed or modified for the articles in block A of this category. |
| C | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.10. Category X - Protective Personnel Equipment.**

| | |
|---|---|
| A | Body armor specifically designed, modified, or equipped for military use; articles including, but not limited to, clothing which is designed, modified or equipped to protect against or reduce detection by radar, infrared (IR) or other sensors; military helmets equipped with communications hardware, optical sights, slewing devices, or mechanisms to protect against thermal flash or lasers, excluding standard military helmets. |
| B | Partial pressure suits and liquid oxygen converters used in aircraft in category VIII, block A. |
| C | Protective apparel and equipment specifically designed or modified for use with the articles in blocks A through D in category XIV. |
| D | Components, parts, accessories, attachments, and associated equipment specifically designed or modified for use with the articles in blocks A through C of this category. |
| E | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.11. Category XI - Military and Space Electronics.**

| | |
|---|---|
| A | Electronic equipment not included in category XII of the Munitions List which is assigned a military designation or is specifically designed, modified, or configured for military application. This includes, but is not limited to, the following: |
| *1 | Underwater sound equipment to include active and passive detection, identification, tracking, and weapons control equipment. |
| *2 | Underwater acoustic active and passive countermeasures and counter-countermeasures. |
| 3 | Radar systems with capabilities such as:<br>*a. Search.<br>*b. Acquisition.<br>*c. Tracking.<br>*d. Moving target indication.<br>*e. Imaging radar systems.<br>f. Any ground air traffic control radar which is specifically designed or modified for military application. |
| *4 | Electronic combat equipment, such as:<br>a. Active and passive countermeasures.<br>b. Active and passive counter-countermeasures.<br>c. Radios (including transceivers) specifically designed or modified to interfere with other communication devices or transmissions. |
| *5 | Command, control, and communication systems to include radios (transceivers), navigation, and identification equipment. |
| 6 | Computers specifically designed for military application and any computer specifically modified for use with any category of the U. S. Munition List. |
| 7 | Any experimental or developmental electronic equipment specifically designed or modified for military application or specifically designed or modified for use with a military system. |

| | |
|---|---|
| *B | Electronic systems or equipment specifically designed, modified, configured for intelligence, security, or military purposes for use in search, reconnaissance, collection, monitoring, direction-finding, display, analysis and production of information from the electromagnetic spectrum and electronic systems or equipment designed or modified to counteract electronic surveillance or monitoring. A system meeting this definition is controlled under the U. S. Munition List even in instances where any individual pieces of equipment constituting the system may be subject to the controls of another U. S. Government agency. Such systems or equipment described above include, but are not limited to, those: |
| 1 | Designed or modified to use crytographic techniques to generate the spreading code for spread spectrum or hopping code for frequency agility. This does not include fixed code techniques for spread spectrum. |
| 2 | Designed or modified for using burst techniques (e.g., time compression techniques) for intelligence, security, or military purposes. |
| 3 | Designed or modified for the purpose of information security to suppress the compromising emanations of information bearing signals. This covers TEMPEST suppression technology and equipment meeting or designed to meet Government TEMPEST standards. This definition is not intended to include equipment designed to meet Federal Communication Commision (FCC) commercial electromagnetic interference standards or equipment designed for health or safety. |
| C | Space electronics: |
| *1 | Electronic equipment specifically designed or modified for spacecraft and space flight. |
| 2 | Electronic equipment specifically designed or modified for use with nonmilitary communications satellites. |
| 3 | Components, parts, accessories, attachments, and associated equipment specically designed or modified for use or currently used with the equipment identified in blocks 1 and 2 of this category |
| D | Components, parts, accessories, attachments, and associated equipment specifically designed or modified for use or currently used with the equipment in blocks A through C of this category, except for such items as are in normal commercial use. |
| E | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.12. Category XII - Fire Control, Range Finder, Optical, and Guidance and Control Equipment.**

| | |
|---|---|
| *A | Fire control systems; gun and missile tracking and guidance systems; gun range, position, height finders, spotting instruments and laying equipment; aiming devices (electronic, optic, and acoustic); bomb sights, bombing computers, military television sighting and viewing units, and periscopes for the articles of this section. |
| *B | Lasers specifically designed, modified or configured for military application including those used in military communication devices, target designators and range finders, target detection systems, and directed energy systems. |
| *C | Infrared focal plane array detectors specifically designed, modified or configured for military use; image intensification and other night sighting equipment or systems specifically designed, modified or configured for military use; second generation and above military image intensification tubes (defined below) specifically designed, modified or configured for military use, and infrared, visible and ultraviolet devices specifically designed, modified or configured for military application. **Note:** Special Definition. Second and third generation image intensification tubes are defined as having a peak response within the 0.4 to 1.05 micron wavelength range and incorporating a microchannel plate for electron image amplification having a hole pitch (center-to-center spacing) of less than 25 microns and having either an S-20, S-25, or multialkali photocathode or a semiconductor photocathode. |
| *D | Inertial platforms and sensors for weapons or weapons systems; guidance, control and stabilization systems except for those systems covered in category VII; astro compasses and star trackers and military and nonmilitary accelerometers and gyros. For aircraft inertial reference systems and related components refer to Category VIII. |
| E | Nonmilitary second generation and above image intensification tubes, nonmilitary infrared focal plane arrays, and image intensification tubes identified in Block C of this section when part of a commercial system (i.e., those systems originally designed for commercial use). This does not include military systems comprised of non-military specification components. |
| F | Components, parts, accessories, attachments, and associated equipment specifically designed or modified for the articles in blocks A and B of this category, except for such items as are in normal commercial use. |
| E | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.13. Category XIII - Auxiliary Military Equipment.**

| | |
|---|---|
| A | Cameras including space cameras, and specialized processing equipment therefor; military photointerpretation, stereoscopic plotting, and photogrammetry equipment which are specifically designed or modified for military purposes, and components specifically designed or modified therefor. |
| B | Information security systems and equipment, cryptographic devices, software, and components specifically designed or modified therefor, including |
| 1 | Crytographic (including key management) systems, equipment, assemblies, modules, integrated circuits, components or software with the capability of maintaining secrecy or confidentiality of information or information systems, except crytographic equipment and software as designated in 22 CFR, Part 121 and 121.1, Category XIII. |
| 2 | Crytographic (including key management) systems, equipment, assemblies modules, integrated circuits, components or software which have the capability of generating, spreading, or hopping codes for spread spectrum systems or equipment. |
| 3 | Cryptanalytic systems, equipment, assemblies, modules, integrated circuits, components or software |
| 4 | Systems, equipment, assemblies, modules integrated circuits, components or software providing certified or certifiable multi-level security or user isolation exceeding class B2 of the Trusted Computer System Evaluation Criteria (TCSEC) and software to certify such systems equipment or software. |
| 5 | Ancillary equipment specifically designed or modified for items in blocks B.1-5 of this category. |
| C | Self-contained diving and underwater breathing apparatus as follows |
| 1 | Closed and semi-closed circuits (rebreathing) apparatus. |
| 2 | Specifically designed components for use in the conversion of open-circuit apparatus to military use |
| 3 | Articles exclusively designed for military use with self-contained diving and underwater swimming apparatus. |
| D | Carbon/carbon billets and preforms which are reinforced with continuous unidirectional tows, tapes, or woven cloths in three or more dimensional planes (i.e., 3D, 4D, etc.). This is exclusive of carbon/carbon billets and preforms where reinforcement in the third dimension is limiteed to interlocking of adjacent layers only, and carbon/carbon 3D, 4D, etc., end items which have not been specifically designed or modified for defense articles (e.g., brakes for commercial aircraft or high speed trains). Armor (e.g., organic, ceramic, mettalic), and reactive armor which have been specifically designed or modified for defense articles. Structural materiels including carbon/carbon and metal matrix composites, plate, forgings, castings, welding consumables and rolled and extruded shapes which have been specifically designed or modified for defense articles. |

| | |
|---|---|
| E | Concealment and deception equipment, including but not limited to special paints, decoys, and simulators and components, parts and accessories specifically designed or modified therefor. |
| F | Energy conversion devices for producing electrical energy from nuclear, thermal, or solar energy, or from chemical reaction which are specifically designed or modified for military application. |
| G | Chemiluminescent compounds and solid state devices specifically designed or modified for military application. |
| H | Devices embodying particle beam and electromagnetic pulse technology.and associated components and subassemblies (e.g., ion beam current ejectors, particle accelerators for neutral or charged particles, beam handling and projection equipment, beam steering, fire control, and pointing equipment, test and diagnostic instruments, and targets) which are specifically designed or modified for directed energy weapon applications. |
| I | Metal embrittling agents. |
| *J | Hardware and equipment, which has been specifically designed or modified for military applications, that is associated with the measurement or modification of system signatures for detection of defense articles. This includes but is not limited to signature measurement equipment; prediction techniques and codes; signature materiels and treatments; and signature control design methodology. |
| K | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.14. Category XIV - Toxicological Agents and Equipment and Radiological Equipment.**

| | |
|---|---|
| *A | Chemical agents including, but not limited to, lung irritants, vesicants, lachrymators, tear gases (except tear gas formulations containing 1 percent or less CN or CS), sternutators and irritant smoke, and nerve gases and incapacitating agents. |
| *B | Biological agents. |
| *C | Equipment for dissemination, detection, and identification of and defense against, the articles in blocks A and B of this category. |
| *D | Nuclear radiation detection and measuring devices, manufactured to military specification. |
| E | Components, parts, accessories, attachments, and associated equipment specifically designed or modified for the articles in blocks C and D of this category. |
| F | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.15. Category XV - Spacecraft Systems and Associated Equipment.**

| | |
|---|---|
| *A | Spacecraft and associated hardware including ground support equipment, specifically designed or modified for military use. |
| B | |
| 1 | Reserved. |
| 2 | Communications satellites (excluding ground stations and their associated equipment and technical data not enumerated elsewhere in the U.S. Munitions List; for controls on such ground stations see 15 CFR, Part 799.1, Commerce control List) with any of the following characteristics: |
| | a. Anti-jam capability. Antennas and/or antenna systems with the ability to respond to incoming interference by adaptively reducing antenna gain in the direction of the interference. |
| | b. Antennas:<br>(1) With aperture (overall dimension of the radiating portions of the antenna) greater than 30 feet.<br>(2) With sidelobes less than or equal to -35dB.<br>(3) Designed, modified or configured to provide coverage area on the surface of the earth less than 200mm in diameter, where “coverage area” is defined as that area on the surface of the earth that is illuminated by the main beam width of the antenna (which is the angular distance between half power points of the beam). |
| | c. Designed, modified or configured for intersatellite data relay links that do not involve a ground relay terminal (“crosslinks”). |
| | d. Spaceborne baseband processing equipment that uses any technique other than frequency translation which can be changed several times a day on a channel by channel basis among previously assigned fixed frequencies. |
| | e. Employing any of the cryptographic items controlled under Category XIII of the U.S. Munitions List. |
| | f. Employing radiation-hardened devices controlled elsewhere in the U.S. Munitions List that are not “embedded” in the satellite in such a way as to deny physical access. (Here “embedded” means that the device either cannot feasibly be removed from the satellite or be used for other purposes). |
| | g. Having propulsion systems which permit acceleration of the satellite on-orbit (i.e., after mission orbit injection) at rates greater than 0.1g. |
| | h. Having altitude control and determination systems designed to provide spacecraft pointing determination and control better than 0.02 degrees azimuth and elevation. |
| | i. Having orbit transfer engines (“kick-motors”) which remain permanently with the spacecraft and are capable of being restarted after achievement of mission orbit and providing acceleration greater than 1g. (Orbit transfer engines which are not designed, built, and shipped as an integral part of the satellite are controlled under Category IV of the U.S. Munitions List). |

| | |
|---|---|
| C | Global Positioning Systems (GPS) receiving equipment specifically designed, modified, or configured for military use: or GPS receiving equipment with any of the following characteristics |
| 1 | Designed for encryption or decryption (e.g., Y-Code) of GPS precise positioning service (PPS) signals |
| 2 | Designed for producing navigation results above 60,000 feet altitude and at 1,000 knots velocity or greater. |
| 3 | Specifically designed or modified for use with a null steering antenna designed to reduce or avoid jamming signals. |
| 4 | Designed or modified for use with unmanned air vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km. |
| | **Note:** GPS receivers designed or modified for use with military unmanned air vehicle systems with less capability are considered to be specifically designed, modified, or configured for military use and therefore covered under this subparagraph. |
| D | Components, parts, accessories, attachments, and associated equipment (including ground support equipment) specifically designed, modified, or configured for the articles in blocks 1 through 3 of this category, as well as any satellites under the export licensing jurisdiction of the Department of Commerce except as noted in 22 CFR, Part 121 and 121.1, Category XV, Explanatory Note. |
| E | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. In addition, detailed design, development, production, or manufacturing data for all spacecraft systems and specifically designed or modified components thereof, regardless of which U.S. Government agency has jurisdiction for export of the hardware. This restriction does not include that level of technical data (including marketing data) necessary for a purchaser to have assurance that a U.S.-built item intended to operate in space has been designed, manufactured, and tested in conformance with specific contract requirements (e.g., operational performance, reliability, lifetime, product quality, or delivery expectations) and data necessary to evaluate in-orbit anomalies and to operate and maintain associated ground equipment. |

**Table 7A2.16. Category XVI - Nuclear Weapons Design and Test Equipment.**

| | |
|---|---|
| *A | Any article, material, equipment, or device which is specifically designed or modified for use in the design, development, or fabrication of nuclear weapons or nuclear explosive devices. (See Department of Commerce Export Regulations, 15 CFR Part 788.) |
| *B | Any article, material, equipment, or device which is specifically designed or modified for use in the devising, carrying out, or evaluating of nuclear weapons tests or any other nuclear explosion, except such items as are in commercial use for other purposes. |
| C | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.17. Category XVII - Classified Articles not Otherwise Enumerated.**

| |
|---|
| *All articles, technical data, and defense services relating thereto which are classified in the interest of national security and which are not otherwise enumerated in the U. S. Munitions List. |

**Category XVIII - Reserved.**

**Category XIX - Reserved.**

**Table 7A2.18. Category XX - Submersible Vessels, Oceanographic, and Associated Equipment.**

| | |
|---|---|
| *A | Submersible vessels, manned and unmanned, tethered or untethered, designed or modified for military purpose or powered by nuclear propulsion plants. |
| *B | Swimmer delivery vehicles designed or modified for military purposes. |
| C | Equipment, components, parts, accessories, and attachments specifically designed or modified for any of the articles in blocks A and B of this category. |
| D | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

**Table 7A2.19. Category XXI - Miscellaneous Articles.**

| | |
|---|---|
| A | Any article not specifically enumerated in the other categories of the U. S. Munitions List which has substantial military applicability and which has been specifically designed or modified for military purposes. The decision on whether any article may be included in this category shall be made by the Director of the Office of Munitions Control. |
| B | Technical data and defense services directly related to the defense articles enumerated above. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as SME shall itself be designated SME. |

## Attachment 7A3

## Strategic List Materials

**7A3.1. General.** Strategic list items (SLIs) are dual-use (commercial and military) items under the export control jurisdiction of the Bureau of Export Administration (BXA), Department of Commerce, which have been assigned a code letter "A" or "B" following the export commodity control number (ECCN) on the CCL, of the Export Administration Regulation (EAR), Title 15, Code of Federal Regulations, Part 799.1, current edition. These commodities are controlled for reasons of national security, foreign policy controls, nuclear proliferation, missile technology, chemical or biological warfare, and short supply (resource assessment). DoD item/technical managers/equipment specialist will assign a demilitarization code of "Q" to these items if they fall outside of the criteria of an MLI. Items which fall outside of the criteria for both munitions and SLI will be assigned a demilitarization code of "A." NOTE: The Munitions List always takes precedence over the Strategic List. This attachment and the related EAR will be used only when an item does not meet the criteria for a Munitions List Item.

**7A3.2. Commodity Control List.** The following CCL is excerpted from the EARs. This list is included for general guidance in identifying commodities which are considered SLIs for the purpose of the DoD manual. A final determination must be based on a review of the specific commodity interpretation in 15 CFR 799.1, and a commodity listed in this section must not be construed as all inclusive (e.g., absorbers, electromagnetic wave, ECCN 1C01A, include only those which have frequencies exceeding 2 X 10/8 Hz and less than 3 X 10/12 Hz, with three exceptions).

**7A3.3. The Export Administration Regulations.** The U.S. Export Administration Regulations are updated several times a year with publication of Export Administration Bulletins and a complete printing is produced annually. To obtain a copy of the U.S. Export Administration Regulations and all subsequent Export Administration Bulletins, contact the Department of Commerce, (202) 482-4811, Ext. 0. Annual subscription rate is $94, there is no charge to DoD activities.

**Table 7A3.1.**

| COMMODITY DESCRIPTION | ECCN |
|---|---|
| A-D and D-A converters | 3A01A |
| Absorbers, electromagnetic wave | 1C01A |
| Absorbers, hair type | 1C01A |
| Absorbers, planar | 1C01A |
| Accelerators, electron | 2A54B |
| Accelerators, particle | 2A54B |
| Accelerometers | 7A01A |
| Acoustic underwater communication | 5A02A |
| Acoustic underwater detection devices | 6A18A |
| Acoustic wave devices | 3A01A |
| Acoustics | 6A01A |
| Active magnetic bearing systems | 2A05A |

| | |
|---|---|
| Adaptive radios | 5A02A |
| Aero-engines and parts | 9A01A |
| Air independent power systems | 8A02A |
| Airborne laser radar systems for missile systems | 7A26B |
| Airborne radar | 7A26B |
| Aircraft gaskets | 1A01A |
| Aircraft/helicopters | Cat. 9A |
| Airframe structures equipment | 1B03A |
| Airlocks, for use with nuclear plants | 2A50B |
| Alloys/metal/powder or materials | 1C02A |
| Alloys/metal/powders, systems for producing | 1B02A |
| Altimeters, airborne | 7A06A |
| Aluminum alloys | 1C02A |
| Ammunition | 0A18A |
| Amorphous alloy strips | 1C03A |
| Amplifier equipment | 5A02A |
| Amplifiers, solid state | 3A01A |
| Analog instrumentation magnetic tape recorders | 3A02A |
| Analog transmission equipment | 5A02A |
| Analog-to-digital and digital-to-analog converters | 3A01A |
| Analyzers, network | 3A02A |
| Analyzers, protocol | 5B02A |
| Antennas, phased array | 5A06A |
| Anti-friction bearings | Cat. 2A |
| Arc furnaces | 1B50B |
| Armor plate machines | 2B18A |
| Array processors, digital | 3A01A |
| Atomic Frequency-standards | 3A02A |
| Attitude Heading Reference System (AHRS) | 7D02A |
| Automatic pilots | Cat. 7A |
| Avionics | Cat. 7 |
| Bacteria/fungi/protozoa | 1C61B |
| Ball bearing or solid roller bearings | Cat. 2A |

| | |
|---|---|
| Batch mixers | 1B28B |
| Batteries | 3A01A |
| Bayonets | 0A18A |
| Bearings systems, active magnetic | 2A05A |
| Bearing, ball or solid roller | Cat. 2A |
| Bearings, gas-lubricated foil | 2A04A |
| Bearings, journal sliding | 2A06A |
| Bearings, solid tapered | 2A03A |
| Beryllium metal/compounds/alloys | 1C19A |
| Bismuth | 1C51B |
| Bit-error rate testers, telecommunications | 5B02A |
| Bladders made from fluorelasomers | 1A01A |
| Bladders, fuel, for aircraft | 1A01A |
| Blowers, corrosion resistant to hydrogen sulfide | 2A55B |
| Boards, mother, for computers | 4A03A |
| Boilers, marine | 8A18A |
| Bonding, diffusion, equipment | 1B03A |
| Boron and boron compounds | 1C57B |
| Brush seals, equipment for the test of | 9B03A |
| C.A.D. for semi-conductor/ microcircuit | 3B01A |
| C.A.D. software | 3D03A |
| Cable, manufacturing equipment | 5B01A |
| Cable, fluoride fiber/other | 6A04A |
| Cable, optical fiber/other communication | 5A05A |
| Calcium | 1C52B |
| Cameras | 6A03A |
| Capacitors | 3A01A |
| Carbon fibrous and filamentary materials | 1C10B |
| Casks for transporting radio-active materials | 2A50B |
| Catalysts | 1C19A |
| Cellular phones/radio technology | 5E02A |
| Cellular phones/radio, switching | 5A03A |

| | |
|---|---|
| Cellular/mobile phones/radios containing cryptography | 5A11A |
| Centrifugal balancing machines (specified) | 2B53B |
| Centrifugal casting machines | 2B18A |
| Ceramic (other) or graphite materials | 1C27B |
| Ceramic base materials | 1C07A |
| Chambers, environmental | 1B18A |
| Channel estimators | 5B02A |
| Chemical weapons, equipment used in production of | Cat.1B |
| Chemicals on the International Munitions List | 1C18A |
| Chlorine trifluoride | 1C56B |
| Chlorofluorocarbons | 1C06A |
| Cipher equipment | 5A11A |
| Co-processors, graphics | 4A03A |
| Collector, for nuclear use | 2A52B |
| Common channel signalling | 5A03A |
| Communications | Cat. 5 |
| Communication equipment | Cat. 5 |
| Communications intercepting devices abd parts | 5A02A |
| Communications processors | Cat. 5 |
| Communications transmission equipment | 5A02A |
| Compasses/gyroscopes | Cat. 7 |
| Components made from fluorinated compounds | 1A01A |
| Compounds, fluorinated | 1A01A |
| Composite conductors, “superconductive” | 1C05A |
| Composite structures (other) | 1A22B |
| Composite structures or laminates | 1A02A |
| Composite theoretical performance (CTP) | Cat. 4 |
| Compressors/blowers for hydrogen sulfide | 2A55B |
| Computer-aided-design (CAD) software for semiconductor devices or integrated circuits | 3D03A |
| Computers | Cat. 4 |
| Computers, airborne | 4A02A |
| Computers, non-ruggedized | 4A03A |

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|---|---|
| Computers, software | Cat. 4D |
| Computers, technology | Cat. 4E |
| Computers, test/manufacture/development equipment | Cat. 4B |
| Computers, ruggedized | 4A01A |
| Construction equipment (to military specifications) | 0A18A |
| Controlled environment furnaces | 1B50B |
| Copolymers, thermoplastic liquid crystal | 1C08A |
| Copolymers, vinylidene fluoride | 1C09A |
| Crime-science laboratories, mobile, nonmilitary | 9A80B |
| Crucibles | 1A44B |
| Cryptanalytic equipment | 5A11A |
| Cryptographic and ancillary equipment | 5A11A |
| Cylindrical tubing | 1A46B |
| D-A, A-D converters | 3A01A |
| Damping or flotation fluids | 1C06A |
| Data communication equipment | Cat. 5 |
| Deep submergence vehicles | Cat. 8A |
| Densification equipment, pyrolytic | 1B30B |
| Depleted uranium | 1A48B |
| Detection/tracking equipment, infrared/ultraviolet | 6A02A |
| Detonators | 3A49B |
| Diesel/marine engines | 8A18A |
| Digital computer peripherals | Cat. 4 |
| Digital transmission equipment | 5A02A |
| Dimensional inspection systems | 2B06A |
| Direct numerical control systems | Cat.2B |
| Disk drives, computer | Cat. 4 |
| Doppler navigation radar equipment | 7A26B |
| Electro-optic materials | 6C04A |
| Electrolytic cells for fluorine production | 1B19A |
| Electron accelerators | 2A54B |
| Electron video tubes/specialized components | Cat. 6A |

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|---|---|
| Electronic device and components | 3A01A |
| Electronic equipment | 3A02A |
| Electronic test equipment | 3A02A |
| Electronic vacuum tubes | 3A01A |
| Electrostatic collectors | 2A52B |
| Emulators for microcircuits | 3A02A |
| Encoders, position | 3A01A |
| Encryption/decryption equipment | 5A11A |
| Engines, marine gas turbine | 9A02A |
| Equipment for production of fibers/prepegs/preforms | 1B01A |
| Ethyl and methyl centralites | 1C18A |
| Exchange, telephones | 5A03A |
| Explosives (military)/ propellants/fuels | 1C18A |
| Facsimile equipment | 5A02A |
| Fiber optic | 6A06A |
| Fiber optic cable | 5A05A |
| Fiber optic connectors, couplers, and components | 5A05A |
| Fiber optic hull penetrators or connectors | 8A02A |
| Fiber optic manufacturing equipment | 5B01A |
| Fibers, reinforcement, equipment | 1B01A |
| Fibrous/filamentary material, laminated | 2C10A |
| Fibrous/filamentary materials of carbon | 1A02A |
| Filament winding machines | 1B01A |
| Firing sets | 3A46B |
| Fittings, nuclear use | 1A51B |
| Flotation fluids | 1C06A |
| Fluids and lubricating materials | 1C06A |
| Fluorinated compounds | 1A01A |
| Fluorocarbon compounds (unprocessed) | 1C09A |
| Foil bearings, gas-lubricated | 3A04A |
| Forms and forgings, cylindrical | 1A46B |
| Frequency agile radio systems | 5A02A |
| Frequency agile radio systems | 5A11A |

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|---|---|
| Frequency standards | 3A02A |
| Frequency synthesizers | 3A02A |
| Fuel bladders | 1A01A |
| Furnaces, vacuum or controlled environment | 1B50B |
| Gas, turbine blade/vane-making equipment | 9B01A |
| Gas-lubricated foil bearing | 2A04A |
| Gaskets for aircraft | 1A01A |
| Gateways and bridges, telecommunications | 5A02A |
| Gear making/finishing machines | 2B03A |
| Generators, nuclear related | 2A50B |
| Generators, signal | 3A02A |
| Graphite materials, missile systems | 1C27B |
| Gravimeters | 6B07A |
| Gravity meters (gravimeters) & gradimeters | 6A07A |
| Gun honing machines | 2B18A |
| Gun systems, high-velocity | 3A48B |
| Gyro tuning test stations | 7B03A |
| Gyrostabilizers | Cat. 7 |
| Hafnium metal/compounds/ alloys | 1C19A |
| Hair type absorbers | 1C01A |
| Heat exchangers, nuclear related | 2A50B |
| Heat shields | 1C22B |
| Helicopters | Cat. 9A |
| Helium, enriched in isotope | 3 2C55B |
| HEMT (High electron mobility transistors) | 3C01A |
| High energy devices | 3A01A |
| High velocity gun systems | 3A48B |
| Hot isostatic presses | 2B04A |
| Hydraulic fluids | 1C06A |
| Hydrides | 3C04A |
| Hydrofoils | 8A02A |
| Image enhancing | 4A03A |

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|---|---|
| Imaging equipment, direct view | 6A02A |
| Induction coil magnetometers | 6A06A |
| Induction, hardening machines (for tank turret components) | 2B18A |
| Inertial measurement unit (IMU) | 7B22B |
| Inertial navigation systems | 7A03A |
| Information Security | Cat. 5 |
| Infrared communication systems | 5A02A |
| Inorganic fibrous or filamentary materials | 2C10B |
| Inspection equipment, non-destructive | 2B01A |
| Inspection equipment, nuclear | 2A50B |
| Integrated circuit manufacturing equipment | 3B01A |
| Integrated circuits | 3A01A |
| Integrated Services Digital network | 5A03A |
| Interlacing machines | 1B01A |
| Intrinsic magnetic gradiometers | 6A06A |
| Inverters/converters/frequency changers | 3A50B |
| Isostatic presses | 2B24B |
| Isostatic presses, hot | 2B04A |
| Isotopically enriched helium | 1C55B |
| Journal sliding bearings | 2A06A |
| Kasers | 6A05A |
| Ketones | 1C08A |
| Lasers, telecommunications systems | 5A02A |
| Light systems for underwater use | 8A02A |
| Light systems for underwater use | 8A93A |
| Line terminating equipment | 5A02A |
| Lithium metal/compounds/ alloys | 1C19A |
| Lithography equipment, semiconductor | 3B01A |
| Local area network | Cat. 5 |
| LSI masks/substrates/mask-making and related equipment | 3C01A |
| Lubricants | Cat.1 |
| Lubricating materials | 1C06A |
| Machinery for aircraft manufacture | 1B03A |

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|---|---|
| Machinery for military equip-ment mfg./testing | 2B18A |
| Machines for manufacture of jet/gas turbine engines | Cat. 9B |
| Machines for turning optical-quality surfaces | 2B02A |
| Magnesium | 1C53B |
| Magnesium alloys | 1C02A |
| Magnetic collectors | 2A52B |
| Magnetic metals | 1C03A |
| Magnetic/pressure/acoustical underwater detection devices | 6A18A |
| Magnetometers | 6A06A |
| Mandrels and bellows forming dies/rotor fab. equipment | 2B51B |
| Manipulators, remote, for nuclear use | 2A50B |
| Manned submersible vehicles | 8A01A |
| Manufacturing/inspection machines that can be numerically controlled | Cat. 2B |
| Maraging Steel | 1A27B |
| Maraging Steel | 1A47B |
| Marine technology | Cat. 8 |
| Masks or reticles | 3B01A |
| Mass spectrometers | 3A51B |
| Materials (see also specific categories) | Cat. 1 |
| Materials Processing | Cat. 2 |
| Materials processing table: disposition techniques | Cat. 2B |
| Measuring equipment, electronic | 3A02A |
| Measuring equipment, telecommunications | 5B01A |
| Medical equipment, computerized | Cat. 4 |
| Mesh, phospher bronze | 1A45B |
| Metal alloys/powders and materials | 1C02A |
| Metal alloys/powders and material, equipment for | 1B02A |
| Metal-organic compounds; Al, Gallium, Indium | 3C03A |
| Metals | Cat. 1 |
| Microwave antennas, phase array | 5A06A |
| Microwave equipment | 3A01A |
| Microwave equipment (receivers/transceivers) | 3A02A |

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|---|---|
| Microwave equipment telecommunications | 8A02A |
| Microwave or millimeter wave devices | 3A01A |
| Military explosives, equipment | 1B18A |
| Military helmets | 0A18A |
| Military nuclear reactor-related power generating equipment | 2A19A |
| Military training equipment | 9A18A |
| Mixers, batch, for mixing solid propellants | 1B28B |
| Modems | 5A02A |
| Molds for bonding and forming | 1B03A |
| Molbdenum and molybdenum alloys | 1C22B |
| Mother boards, computers | 4A03A |
| Motors, submarine-propulsion electric | 8A18A |
| Mtop (millions of theoretical operations per second) | Cat. 4A |
| Multidirectional/multidimen-sional weaving machines | 1B01A |
| Multiplex equipment | 5A02A |
| Multispectral imaging sensors | 6A02A |
| Muzzle-loading (black powder) firearms | 0A18A |
| Naval equipment /diesel engines | 8A18A |
| Navigation/direction-finding equipment | Cat. 7 |
| Network analyzers | 3A02A |
| Network control | 5A04A |
| Neutron generator systems | 2A19A |
| Nickle alloys | 1C02A |
| Nickel powder/porous metal | 1C19A |
| Niobium alloys | 1C02A |
| Non-fluorinated polymeric sub-stances | 1C08A |
| Nozzles substrates and throats | 1C22B |
| Nozzles, specially designed for producing materials from precursor gases | 1B30B |
| Nuclear reactor/nuclear power plant-related communication | 5A01A |
| Nuclear reactor/nuclear power plant-related equipment | 2A50B |
| Numerical control equipment | Cat. 2B |
| Ocean cable | 5A05A |
| Optical amplifiers, tele-communications | 5A02A |

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|---|---|
| Optical detectors | 6A02A |
| Optical fiber characterization equipment | 5B01A |
| Optical fibers and cables | 5A05A |
| Optical fibers/cables mfg. & test equipment | 5B01A |
| Optical integrated circuits | 3A01A |
| Optical sensors | 6A02A |
| Optical/optical tube elements | A02A |
| Optics | Cat. 6 |
| Organic fibrous and filamentary materials | 1C10A |
| PABX/PBX equipment | 5A03A |
| Packet switching equipment | 5A03A |
| Packings of phosphor bronze mesh | 1A45B |
| Panoramic/digitally-controlled radio receivers | 5A02A |
| Parachutes, military | 9A18A |
| Peripherals, computers | Cat. 4 |
| Phased array antennas | 5A06A |
| Photo-voltaic cells | 3A01A |
| Photographic equipment | 6A03A |
| Photosensitive components | 6A02A |
| Photosensitive equipment | 6A22B |
| Piezoelectric polymers and copolymers | 1A01A |
| Pipe/valves/heat exchangers, stainless steel/corrosion resistant | 2A52B |
| Planar absorbers | 1C01A |
| Plasma furnaces | 1B50B |
| Polymeric substances/manufactures | Cat. 1 |
| Power generating equipment | 2A19A |
| Power plant simulator, nuclear | 2A50B |
| Precision tracking systems | 6A29B |
| Precursor materials | 1C07A |
| Performs for fabrication optical transmission fibers | 5C01A |
| Presses and specialized controls/ accessories | 2B04A |
| Pressure refueling equipment | 9A18A |

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|---|---|
| Pressurized aircraft breathing equipment | 9A18A |
| Private automatic exchanges | 5A03A |
| Profilometers | 7B02A |
| Propellant control systems, liquid or slurry | 9A23B |
| Propellants, constituent chemicals for | 1C31B |
| Propellants, production of | 1B18A |
| Propellants, production of | 1B28B |
| Propellers, marine | 8A02A |
| Propulsion systems | Cat. 9 |
| Propulsive substances | 1C31B |
| Protocol analyzers | 5B02A |
| Pulse generators | 3A44B |
| Pumps jet propulsion systems | 8A02A |
| Pumps for nuclear uses | 2A53B |
| Pyrolytic deposition and densifi-cation equipment | 1B30B |
| Radar and related equipment | Cat. 7 |
| Radar (airborne) and related equipment | 6A08A |
| Radar (airborne) and related equipment | 6A28B |
| Radar cross section measure-ment equipment | 6A30B |
| Radar reflectivity | 1C21B |
| Radar hardened cameras | 2A50B |
| Radiation shielding windows, high-density | 2A50B |
| Radio-relay communication equipment | 5A02A |
| Radiographic equipment (linear accelerators) | 3A22B |
| Reactor, nuclear | 2A50B |
| Reactor, nuclear, simulator | 2A50B |
| Receiving equipment containing cryptography | 5A11A |
| Recording equipment | 3A02A |
| Reduced observables | 1C21B |
| Reflectometers | 7B22B |
| Reflectometers, optical time domain | 5B01A |
| Regenerator equipment | 5A02A |
| Remote manipulators, nuclear use | 2A50B |

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|---|---|
| Repeater and regeneration equipment | 5A02A |
| Resin or pitch-impregnated fibers | 1C10A |
| Resists | 3C02A |
| Rigid magnetic media testing & grading equipment | 4B02A |
| Ring laser gyros | 7B02A |
| Robots, controllers and end-effectors | 2B01A |
| Robots, for underwater use | 8A02A |
| Rotary input type shaft absolute position encoders | 3A01A |
| Satellite communications equipment | Cat. 5 |
| Satellite earth station equipment | 5A02A |
| Satellite receivers, tele-communication | 5A02A |
| Scatterometers | 7B02A |
| Scrambler equipment | 5A11A |
| Seals and sealants for aircraft or aerospace | 1A01A |
| Searchlights (designed for military use) | 0A18A |
| Security, multilevel equipment | 5A11A |
| Semiconductor manufacturing equipment | 3B01A |
| Semiconductor/microcircuit device test equipment | 3B01A |
| Sensors | Cat. 6 |
| Signal analyzers | 3A02A |
| Signal processing, tele-communication | 5A02A |
| Signal processors, computers | 4A03A |
| Signal processors, digital | 3A01A |
| Signalling systems | 5A03A |
| Skirts, seals, and fingers designed for underwater | 8A02A |
| Smart cards, using cryptography | 5A11A |
| Snubbers | 2A50B |
| Software located in each category under | “D” |
| Solid propellants equipment | 1B18A |
| Solid propellants equipment | 1B28B |
| Solid tapered roller bearings | 2A03A |
| Source code for inertial navi-gation equipment | 7D02A |

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|---|---|
| Source code for integrated avionics systems | 7D03A |
| Spreads spectrum radio systems | 5A02A |
| Spreads spectrum radio systems | 5A11A |
| Stealth technology | 1C21B |
| Steel, maraging | 1A27B |
| Steel, maraging | 1A47B |
| Stored program controlled switching equipment | 5A03A |
| Stream turbines, nuclear related | 2A50B |
| Submarine cable | 5A05A |
| Submersible systems | 8A02A |
| Substrates | 3B01A |
| Supercomputers | Cat. 4 |
| Superconductive composite con-ductors | 1C05A |
| Superconductor solenoids or electromagnets | 3A01A |
| Switching devices | 3A43B |
| Switching eguipment, telecommunication | 5A03A |
| Syntactic foam for underwater use | 8C01A |
| Synthetic hydrocarbon oils | 1C06A |
| Tape-laying machines | 1B01A |
| Tapered roller bearings, solid | 2A03A |
| Telecommunications | Cat. 5 |
| Telecontrol equipment | 5A02A |
| Telemetering/telecontrol equipment | 5A20B |
| Telephone switching systems | Cat. 5 |
| Telluride compounds | 6C02A |
| Terrain contour mapping equipment | 7A26B |
| Test equipment, tele-communication | 5B01A |
| Thrust vector control surfaces | 1C22B |
| Thyratrons | 3A43B |
| Tip shroud castings | 9B01A |
| Tools, dies for airframe or aircraft | 1B03A |
| Tow-placement machines | 1B01A |
| Transcoders | 5A02A |

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|---|---|
| Transducers | 9B08A |
| Transistors | 3A01A |
| Transmission equipment | 5A02A |
| Transmitter amplifiers | 5A02A |
| Transportation equipment | Cat. 9 |
| Tubes, cold cathode | 3A43B |
| Tubes, electron vacuum | 3A01A |
| Tubes, image intensifier | 6A02A |
| Tubes, photo multiplier | 6A44B |
| Tubes, television camera | 6A42B |
| Tubing, cylindrical | 1A46B |
| Turbine blades, equipment for mfg. or measuring | 9B01A |
| Turbines, steam and turbine-generator, nuclear related | 2A50B |
| TV cameras, radiation-hardened nuclear use | 2A50B |
| Underwater breathing apparatus | 8A18A |
| Underwater communications cable | 5A05A |
| Underwater communications systems | 5A02A |
| Underwater detection/locating equipment | 6A01A |
| Underwater vision systems | 8A02A |
| Unprocessed fluorinated compounds | 1C09A |
| Uranium hexafluoride mass spectrometers | 3A51B |
| Uranium hexafluoride production plants | 1B19A |
| Uranium, depleted | 1A48B |
| Vacuum microelectronics | 3E02A |
| Vacuum or controlled environ-ment furnaces | 1B50B |
| Valves | 1B19A |
| Valves | 2A19A |
| Valves | 2A51B |
| Vanes | 9B01A |
| Vehicles designed for military use | 9A18A |
| Vehicles designed for transport of “missile” systems | 9A22B |
| Vessels, including hydrofoils | 8A01A |

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| Vibration test equipment | 2B04B |
| Vibration test equipment | 9B26B |
| Vibration test equipment (acoustic) | 9B06A |
| Virus, software for protection against | 5D13A |
| Viruses/viroids | 1C61B |
| Wafer handling systems | 3B01A |
| Water tunnel equipment | 8B01A |
| Waveguides, flexible | 3A01A |
| Weaving machines | 1B01A |
| Wind tunnels | Cat. 9 |
| Wire/cable, non-telecommunication | 1A01A |
| X-ray systems, flash discharge | 3A01A |
| Zirconium metal/alloys | 1C19A |

## Attachment 7A4

### Demilitarization Codes to be Assigned to Federal Supply Items

| CODE | EXPLANATION |
|---|---|
| A | NON-MLI/NON-SLI--Demilitarization not required. |
| B | MLI (NON-SME)--Demilitarization not required. Trade Security Controls (TSCs) required at disposition. |
| C | MLI (SME)-- Remove and/or demilitarized installed key point(s), as prescribed in DODM 4160.21-1, or lethal parts, components, and accessories. |
| D | MLI (SME)-- Total destruction of item and components so as to preclude restoration or repair to a usable condition by melting, cutting, tearing, scratching, crushing, breaking, punching, neutralizing, etc. (As an alternate, burial or deep water dumping may be used when coordinated with the DoD Demilitarization Program Office.) |
| E | MLI (NON-SME)-- Additional critical items/materiel determined to require demilitarrization, either key point or total destruction. Demilitarization instructions to be furnished by the DoD Demilitarization Program Office. |
| F | MLI (SME)-- Demilitarization instructions to be furnished by the item/technical manager. |
| G | MLI (SME)-- Demilitarization required-AEDA. Demilitarization and, if required, declassification and/or removal of sensitive markings or information will be accomplished prior to physical transfer to a DRMO. This code will be used for all AEDA items, including those which also require declassification and/or removal of sensitive markings or information. |
| P | MLI (SME)-- Security Classified Item -- Declassification and any additional demilitarization and removal of any sensitive markings or information will be accomplished prior to accountability or physical transfer to a DRMO. This code will not be assigned to AEDA items. |
| Q | SLI -- Strategic List Item -- Demilitarization not required. SLI are non-MLI and are controlled by the U. S. Department of Commerce through the Export Administration Regulation (EAR) and indicated on the Commerce Control List (CCL). Each CCL entry is preceded by a four-digit Export Control Classification Number (ECCN) and those ECCNs ending in the letter "A" or "B" are defined as strategic list items. These items are subject to Import Certification and Delivery Verification (IC/DV) control and other Trade Security Controls. |